



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0491; Directorate Identifier 2014-NM-023-AD; Amendment 39-18130; AD 2015-07-02]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. This AD was prompted by a determination that the forward lugs of the flap hinge box might not conform to engineering drawings, which could result in premature fatigue cracking. This AD requires revising the maintenance or inspection program to include new airworthiness limitations tasks; and measuring the forward lug edge distance of each flap hinge box, inspecting for cracking and damage (i.e., deformation or bearing failure) of the forward lug edge of each flap hinge box, and repairing any cracking or damage if necessary. We are issuing this AD to detect and correct non-conforming flap hinge box

forward lugs, which could result in failure of the lugs and detachment of the flap hinge box and consequent detachment of the flap surface.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0491> or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0491.

**FOR FURTHER INFORMATION CONTACT:** Ricardo Garcia, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft

Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590;  
telephone 516-228-7331; fax 516-794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc. Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The NPRM published in the Federal Register on August 4, 2014 (79 FR 45140). The NPRM was prompted by a determination that the forward lugs of the flap hinge box might not conform to engineering drawings, which could result in premature fatigue cracking. The NPRM proposed to require revising the maintenance or inspection program to include new airworthiness limitations tasks; and measuring the forward lug edge distance of each flap hinge box, inspecting for cracking and damage (i.e., deformation or bearing failure) of the forward lug edge of each flap hinge box, and repairing any cracking or damage if necessary. We are issuing this AD to detect and correct non-conforming flap hinge box forward lugs, which could result in failure of the lugs and detachment of the flap hinge box and consequent detachment of the flap surface.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-01, dated January 3, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The MCAI states:

The aeroplane manufacturer has determined that the flap hinge box forward lugs edge distance may not conform to the engineering drawings. Non-conforming flap hinge box forward lugs may result in premature fatigue cracking.

Failure of the lugs could lead to the detachment of the flap hinge box and consequently the detachment of the flap surface. The loss of a flap surface could adversely affect the continued safe operation of the aeroplane.

This [Canadian] AD mandates the incorporation of new Time Limits/Maintenance Checks (TLMC) Airworthiness Limitations (AWL) tasks, and the measurement [and inspection for cracking and damage] of the forward lug edge distance of each flap hinge-box and rectification as required.

Corrective actions include repairing damage and cracking. You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2014-0491-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 45140, August 4, 2014) and the FAA's response to each comment.

### **Request to Include Latest Revision of Service Information**

Bombardier, Inc. requested that we revise the NPRM (79 FR 45140, August 4, 2014) to reflect the latest revisions of certain service information.

We agree to include the latest revisions of certain service information.

Bombardier has issued Service Bulletin 604-57-007, Revision 01, dated November 12, 2014 (for Model CL-600-2B16 airplanes); and Service Bulletin 605-57-005, Revision 01, dated November 12, 2014 (for Model CL-600-2B16

airplanes). This new service information does not add new work for the affected airplanes and was revised to update labor hours needed to perform the work and clarify work instructions. We have changed this AD to reference Bombardier Service Bulletin 604-57-007, Revision 01, dated November 12, 2014; and Bombardier Service Bulletin 605-57-005, Revision 01, dated November 12, 2014, throughout. We have also added a new paragraph (k) to this AD to give credit for actions performed before the effective date of this AD using Bombardier Service Bulletin 604-57-007, dated September 26, 2013; and Bombardier Service Bulletin 605-57-005, dated September 26, 2013. We redesignated subsequent paragraphs accordingly.

#### **Request to Correct Typographical Errors**

Bombardier, Inc., and an FAA airframe and powerplant mechanic noted typographical errors in Table 1 of the NPRM (79 FR 45140, August 4, 2014) and requested they be corrected.

We agree that there are typographical errors. We have revised table 1 to paragraph (g) of this AD. The temporary revision (TR) number has been corrected to read “5-275,” in certain rows of table 1 to paragraph (g) of this AD, where in the NPRM (79 FR 45140, August 4, 2014) the previous TR number read “5-276.” The revision of Bombardier CL-604 Time Limits/Maintenance Checks Manual, dated July 8, 2013, was corrected from revision “8” to revision “20.”

### **Explanation of Additional Change Made to this Final Rule**

We have removed Note 1 to paragraph (g) from this final rule. Instead, we have included that information in paragraph (g) of this AD.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 45140, August 4, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 45140, August 4, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Related Service Information under 1 CFR part 51**

Bombardier has issued the following service information.

- Bombardier Service Bulletin 600-0762, dated September 26, 2013. This service information describes procedures for measuring the edge-to-edge distance of the forward lugs for the flap hinge boxes and contacting the manufacturer for corrective actions for Bombardier, Inc. Model CL-600-1A11 (CL-600) airplanes.

- Bombardier Service Bulletin 601-0631, dated September 26, 2013. This service information describes procedures for measuring the edge-to-edge distance of the forward lugs for the flap hinge boxes and contacting the manufacturer for corrective actions for Bombardier, Inc. Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes.

- Bombardier Service Bulletin 604-57-007, Revision 01, dated November 12, 2014. This service information describes procedures for measuring the edge-to-edge distance of the forward lugs for the flap hinge boxes and contacting the manufacturer for corrective actions for Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes having serial numbers (S/Ns) 5301 through 5665 inclusive.

- Bombardier Service Bulletin 605-57-005, Revision 01, dated November 12, 2014. This service information describes procedures for measuring the edge-to-edge distance of the forward lugs for the flap hinge boxes and contacting the manufacturer for corrective actions for Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes having S/Ns 5701 through 5953 inclusive.

- Canadair Challenger Temporary Revision 5-157, dated July 8, 2013, to Outboard Flap - Hinge Box Forward Lugs, to Canadair Challenger Time Limits/Maintenance Checks Manual, PSP 605. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the outboard flap hinge box for Bombardier, Inc. Model CL-600-1A11 (CL-600) airplanes.



- Canadair Challenger Temporary Revision 5-158, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadair Challenger Time Limits/Maintenance Checks Manual, PSP 605. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the inboard flap hinge box for Bombardier, Inc. Model CL-600-1A11 (CL-600) airplanes.

- Canadair Challenger Temporary Revision 5-262, Outboard and Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/Maintenance Checks Manual PSP 601. This service information describes airworthiness limitations tasks and compliance times for inspecting the forward lugs of the outboard and inboard flap hinge boxes for Bombardier, Inc. Model CL-600-2A12 (CL-601) airplanes.

- Canadair Challenger Temporary Revision 5-275, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/Maintenance Checks Manual PSP 601A-5. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the outboard flap hinge box for Bombardier, Inc. Model CL-600-2B16 (CL-601-3A Variants) airplanes.

- Canadair Challenger Temporary Revision 5-276, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/ Maintenance Checks Manual PSP 601A-5. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the inboard flap hinge box for Bombardier, Inc. Model CL-600-2B16 (CL-601-3A and CL-601-3R Variant) airplanes.

- Task 57-50-00-121, Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box, of Section 5-10-30 of Part 2, “Airworthiness Limitations,” of Bombardier CL-605 Time Limits/Maintenance Checks Manual, Revision 8, dated July 8, 2013. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the inboard flap hinge box for Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes, having S/Ns 5701 through 5953 inclusive.

- Task 57-50-00-121, Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box, of Section 5-10-30 of Part 2, “Airworthiness Limitations,” of Bombardier CL-604 Time Limits/Maintenance Checks Manual, Revision 20, dated July 8, 2013. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the inboard flap hinge box of Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes, having S/Ns 5301 through 5665 inclusive.

- Task 57-52-01-102, Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap, of Section 5-10-30 of Part 2, “Airworthiness Limitations,” of Bombardier CL-605 Time Limits/Maintenance Checks Manual, Revision 8, dated July 8, 2013. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the outboard flap hinge box of Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes, having S/Ns 5701 through 5953 inclusive.

- Task 57-52-01-102, Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap, of Section 5-10-30 of Part 2, “Airworthiness Limitations,” of Bombardier CL-604 Time Limits/Maintenance Checks Manual, Revision 20, dated July 8, 2013. This service information describes an airworthiness limitations task and compliance times for inspecting the forward lugs of the outboard flap hinge box of Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes, having S/Ns 5301 through 5665 inclusive.

This service information is reasonably available; see ADDRESSES for ways to access this service information.

### **Costs of Compliance**

We estimate that this AD affects 105 airplanes of U.S. registry.

We also estimate that it will take about 45 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$401,625, or \$3,825 per product.

We have received no definitive data that would enable us to provide cost estimates for the cost of parts or on-condition actions specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0491>; or in person at the

Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2015-07-02 Bombardier, Inc.:** Amendment 39-18130. Docket No. FAA-2014-0491; Directorate Identifier 2014-NM-023-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category.

(1) Bombardier, Inc. Model CL-600-1A11 (CL-600) airplanes, serial numbers 1004 through 1085 inclusive.

(2) Bombardier, Inc. Model CL-600-2A12 (CL-601) airplanes, serial numbers 3001 through 3066 inclusive.

(3) Bombardier, Inc. Model CL-600-2B16 (CL-601-3A and CL-601-3R Variants) airplanes, serial numbers 5001 through 5194 inclusive.

(4) Bombardier, Inc. Model CL-600-2B16 (CL-604 Variants) airplanes, serial numbers 5301 through 5665 inclusive, and 5701 through 5953 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by a determination that the forward lugs of the flap hinge box might not conform to engineering drawings, which could result in premature fatigue cracking. We are issuing this AD to detect and correct non-conforming flap hinge box forward lugs, which could result in failure of the lugs and detachment of the flap hinge box and consequent detachment of the flap surface.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Maintenance or Inspection Program Revision**

Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, by incorporating the applicable airworthiness limitation (AWL) tasks as specified in table 1 to this paragraph. The initial compliance time for doing the task is at the applicable times specified in table 1 to this paragraph. For the incorporation of tasks specified in the temporary revisions (TRs) specified in table 1 to this paragraph of this AD that are a part of the maintenance or inspection program revision required by this paragraph, such incorporation may be done by inserting a copy of the applicable TRs specified in table 1 to this paragraph into the applicable “time limits/maintenance checks” (TLMC) manuals specified in table 1 to this paragraph. When the applicable TRs specified in table 1 to this paragraph have been included in general revisions of the applicable TLMC manual specified in table 1 to this paragraph, the general revisions may be inserted in the applicable TLMC manual specified in table 1 to this paragraph.

**Table 1 to Paragraph (g) of this AD – Tasks**

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-1A11 (CL-600 Variant) airplanes with inboard flaps having greater than 7,400 total flight cycles but equal to or less than 14,850 total flight cycles as of the effective date of this AD	57-40-00-186	Canadair Challenger TR 5-158, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Within 500 flight cycles after the effective date of this AD, but not later than 15,100 total flight cycles

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL600-1A11 (CL-600 Variant) airplanes with inboard flaps having greater than 14,850 total flight cycles as of the effective date of this AD	57-40-00-186	Canadair Challenger TR 5-158, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Within 250 flight cycles after the effective date of this AD
Model CL-600-1A11 (CL-600 Variant) airplanes with inboard flaps having equal to or less than 7,400 total flight cycles	57-40-00-186	Canadair Challenger TR 5-158, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Before the accumulation of 7,900 total flight cycles
Model CL-600-1A11 (CL-600 Variant) airplanes with outboard flaps having greater than 7,500 total flight cycles, but equal to or less than 11,350 total flight cycles as of the effective date of this AD	57-40-00-160	Canadair Challenger TR 5-157, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Within 500 flight cycles after the effective date of this AD, but no later than 11,600 total flight cycles
Model CL-600-1A11 (CL-600 Variant) airplanes with outboard flaps having greater than 11,350 total flight cycles as of the effective date of this AD	57-40-00-160	Canadair Challenger TR 5-157, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Within 250 flight cycles after the effective date of this AD
Model CL-600-1A11 (CL-600 Variant) airplanes with outboard flaps having equal to or less than 7,500 total flight cycles	57-40-00-160	Canadair Challenger TR 5-157, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 605	Before the accumulation of 8,000 total flight cycles



<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-2A12 (CL-601 Variant) airplanes with inboard flaps having greater than 7,400 total flight cycles, but equal to or less than 14,850 total flight cycles, as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-262, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Within 500 flight cycles after the effective date of this AD, but no later than 15,100 total flight cycles
Model CL-600-2A12 (CL-601 Variant) airplanes with inboard flaps with greater than 14,850 total flight cycles as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-262, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Within 250 flight cycles after the effective date of this AD
Model CL-600-2A12 (CL-601 Variant) airplanes with inboard flaps with equal to or less than 7,400 total flight cycles as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-262, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Before the accumulation of 7,900 total flight cycles
Model CL-600-2A12 (CL-601 Variant) airplanes with outboard flaps with greater than 7,500 total flight cycles but equal to or less than 11,350 total flight cycles as of the effective date of this AD	57-40-00-175	Canadair Challenger TR 5-262, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Within 500 flight cycles after the effective date of this AD, but not later than 11,600 total flight cycles

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-2A12 (CL-601 Variant) airplanes with outboard flaps having greater than 11,350 total flight cycles as of the effective date of this AD	57-40-00-175	Canadair Challenger TR 5-262, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Within 250 flight cycles after the effective date of this AD
Model CL-600-2A12 (CL-601 Variant) airplanes with outboard flaps having equal to or less than 7,500 total flight cycles as of the effective date of this AD	57-40-00-175	Canadair Challenger TR 5-262, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601-5	Before the accumulation of 8,000 total flight cycles
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive with inboard flaps having greater than 7,400 total flight cycles but equal to or less than 14,850 total flight cycles as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-276, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Within 500 flight cycles after the effective date of this AD, but not later than 15,100 total flight cycles
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive, with inboard flaps having greater than 14,850 total flight cycles as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-276, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Within 250 flight cycles

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive, with inboard flaps having equal to or less than 7,400 total flight cycles as of the effective date of this AD	57-40-01-101	Canadair Challenger TR 5-276, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Before the accumulation of 7,900 total flight cycles
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive, with outboard flaps having greater than 7,500 total flight cycles but equal to or less than 11,350 total flight cycles as of the effective date of this AD	57-40-00-174	Canadair Challenger TR 5-275, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Within 500 flight cycles after the effective date of this AD, but no later than 11,600 total flight cycles
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive, with outboard flaps having greater than 11,350 total flight cycles as of the effective date of this AD	57-40-00-174	Canadair Challenger TR 5-275, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Within 250 flight cycles after the effective date of this AD

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/Ns 5001 through 5194 inclusive, with outboard flaps having equal to or less than 7,500 total flight cycles as of the effective date of this AD	57-40-00-174	Canadair Challenger TR 5-275, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, of the Canadair Challenger TLMC Manual, PSP 601A-5	Before the accumulation of 8,000 total flight cycles
Model CL-600-2B16 (CL-604 Variant) airplanes having S/Ns 5301 through 5665 inclusive, with inboard flaps	57-50-00-121	Section 5-10-30, Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box, of Part 2, Airworthiness Limitations, of Bombardier CL-604 TLMC Manual, Revision 20, dated July 8, 2013	Before the accumulation of 7,800 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later
Model CL-600-2B16 (CL-604 Variant) airplanes, S/Ns 5301 through 5665 inclusive	57-52-01-102	Section 5-10-30, Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap, of Part 2, Airworthiness Limitations, of Bombardier CL-604 TLMC Manual, Revision 20, dated July 8, 2013	Before the accumulation of 7,800 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later

<b>Affected Airplanes</b>	<b>Task Number</b>	<b>Canadair Service Information</b>	<b>Initial Compliance Time</b>
Model CL-600-2B16 (CL-604 Variant) airplanes, S/Ns 5701 through 5953 inclusive	57-50-00-121	Section 5-10-30, Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box, of Part 2, Airworthiness Limitations, of Bombardier CL-605 TLMC Manual, Revision 8, dated July 8, 2013	Before the accumulation of 7,800 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later
Model CL-600-2B16 (CL-604 Variant) airplanes, S/Ns 5701 through 5953 inclusive	57-52-01-102	Section 5-10-30, Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap, of Part 2, Airworthiness Limitations, of Bombardier CL-605 TLMC Manual, Revision 8, dated July 8, 2013	Before the accumulation of 7,800 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later

**(h) Lug Edge Measurement and Inspection**

At the applicable times specified in table 2 to this paragraph and paragraph (i)(1) of this AD, measure the forward lug edge distance of all flap hinge boxes, and do a general visual inspection for cracking and damage (i.e., deformation or bearing failure) of the forward lug edge of all flap hinge boxes, in accordance with the applicable service bulletin specified in table 2 to this paragraph and paragraph (i)(1) of this AD.

**Table 2 to Paragraphs (h) and (i)(1) of this AD – Compliance Times for Lug Edge Measurement and Inspection**

<b>Airplane Models</b>	<b>Affected Flaps</b>	<b>Compliance Time</b>	<b>Service Information</b>
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Inboard flaps having less than or equal to 7,400 total flight cycles as of the effective date of this AD	Before the accumulation of 7,900 total flight cycles, or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 600-0762, dated September 26, 2013
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Inboard flaps having greater than 7,400 total flight cycles, but equal to or less than 14,850 total flight cycles as of the effective date of this AD	Before the accumulation of 15,100 total flight cycles, or within 500 flight cycles or 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 600-0762, dated September 26, 2013
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Inboard flaps having greater than 14,850 total flight cycles as of the effective date of this AD	Within 250 flight cycles or 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 600-0762, dated September 26, 2013

<b>Airplane Models</b>	<b>Affected Flaps</b>	<b>Compliance Time</b>	<b>Service Information</b>
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Outboard flaps having equal to or less than 7,500 total flight cycles as of the effective date of this AD	Before the accumulation of 8,000 total flight cycles, or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 600-0762, dated September 26, 2013
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Outboard flaps having greater than 7,500 total flight cycles but less than or equal to 11,350 total flight cycles as of the effective date of this AD	Within 500 flight cycles or 48 months after the effective date of this AD, whichever occurs first; but not exceeding 11,600 total flight cycles	Bombardier Service Bulletin 600-0762, dated September 26, 2013
Model CL-600-1A11 (CL-600) airplanes having S/N 1004 through 1085 inclusive	Outboard flaps having greater than 11,350 total flight cycles as of the effective date of this AD	Within 250 flight cycles or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 600-0762, dated September 26, 2013
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variants) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Inboard flaps having less than or equal to 7,400 total flight cycles as of the effective date of this AD	Before the accumulation of 7,900 total flight cycles, or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 601-0631, dated September 26, 2013

<b>Airplane Models</b>	<b>Affected Flaps</b>	<b>Compliance Time</b>	<b>Service Information</b>
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Inboard flaps having greater than 7,400 total flight cycles, but equal to or less than 14,850 total flight cycles, as of the effective date of this AD	Within 500 flight cycles or within 48 months after the effective date of this AD, whichever occurs first; but not exceeding 15,100 total flight cycles	Bombardier Service Bulletin 601-0631, dated September 26, 2013
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Inboard flaps having greater than 14,850 total flight cycles as of the effective date of this AD	Within 250 flight cycles or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 601-0631, dated September 26, 2013
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Outboard flaps having less than or equal to 7,500 total flight cycles as of the effective date of this AD	Before the accumulation of 8,000 total flight cycles, or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 601-0631, dated September 26, 2013
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Outboard flaps having greater than 7,500 total flight cycles, but equal to or less than 11,350 total flight cycles, as of the effective date of this AD	Within 500 flight cycles or within 48 months after the effective date of this AD; but not exceeding 11,600 total flight cycles	Bombardier Service Bulletin 601-0631, dated September 26, 2013



<b>Airplane Models</b>	<b>Affected Flaps</b>	<b>Compliance Time</b>	<b>Service Information</b>
Model CL-600-2A12 (CL-601 Variant) and CL-600-2B16 (CL-601-3A and -3R Variant) airplanes having S/N 3001 through 3066 inclusive, and 5001 through 5194 inclusive	Outboard flaps having greater than 11,350 total flight cycles as of the effective date of this AD	Within 250 flight cycles or 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 601-0631, dated September 26, 2013
Model CL-600-2B16 (CL-604 Variant) airplanes having S/Ns 5301 through 5665 inclusive	Outboard and inboard flaps	Before the accumulation of 7,800 total flight cycles or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 604-57-007, Revision 01, dated November 12, 2014
Model CL-600-2B16 (CL-604 Variant) airplanes having S/Ns 5701 through 5953 inclusive	Outboard and inboard flaps	Before the accumulation of 7,800 total flight cycles or within 48 months after the effective date of this AD, whichever occurs first	Bombardier Service Bulletin 605-57-005, Revision 01, dated November 12, 2014

**(i) Corrective Actions**

(1) If, during the measurement required by paragraph (h) of this AD, the lug edge distance is equal to or greater than the limit specified in the applicable service bulletin specified in table 2 to paragraph (h) of this AD and this paragraph, no further action is required by this paragraph.

(2) If, during the measurement required by paragraph (h) of this AD, the lug edge distance is below the limit specified in the applicable service bulletin specified in table 2 to paragraphs (h) and (i)(1) of this AD, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) If, during the inspection required by paragraph (h) of this AD, any cracking or damage is found, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) No Alternative Actions or Intervals**

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance in accordance with the procedures specified in paragraph (l) of this AD.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 604-57-007, dated September 26, 2013 (for Model CL-600-2B16 airplanes); or Bombardier Service Bulletin 605-57-005, dated September 26, 2013 (for Model CL-600-2B16 airplanes); which are not incorporated by reference in this AD.

## **(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

## **(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-01, dated January 3, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0491-0004>.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 600-0762, dated September 26, 2013.

(ii) Bombardier Service Bulletin 601-0631, dated September 26, 2013.

(iii) Bombardier Service Bulletin 604-57-007, Revision 01, dated November 12, 2014.

(iv) Bombardier Service Bulletin 605-57-005, Revision 01, dated November 12, 2014.

(v) Canadair Challenger Temporary Revision 5-157, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadair Challenger Time Limits/Maintenance Checks Manual, PSP 605.

(vi) Canadair Challenger Temporary Revision 5-158, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadair Challenger Time Limits/Maintenance Checks Manual, PSP 605.

(vii) Canadair Challenger Temporary Revision 5-262, Outboard and Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/Maintenance Checks Manual PSP 601.

(viii) Canadair Challenger Temporary Revision 5-275, Outboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/Maintenance Checks Manual PSP 601A-5.

(ix) Canadair Challenger Temporary Revision 5-276, Inboard Flap - Hinge Box Forward Lugs, dated July 8, 2013, to Canadian Challenger Time Limits/Maintenance Checks Manual PSP 601A-5.

(x) Task 57-50-00-121 Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box of Section 5-10-30 of Part 2, "Airworthiness Limitations," of Bombardier CL-605 Time Limits/Maintenance Checks Manual, Revision 8, dated July 8, 2013.

(xi) Task 57-50-00-121 Special Detailed Inspection of the Forward Lugs of the Inboard Flap Hinge Box of Section 5-10-30 of Part 2, "Airworthiness Limitations," of Bombardier CL-604 Time Limits/Maintenance Checks Manual, Revision 20, dated July 8, 2013.

(xii) Task 57-52-01-102 Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap of Section 5-10-30 of Part 2, "Airworthiness Limitations," of Bombardier CL-605 Time Limits/Maintenance Checks Manual, Revision 8, dated July 8, 2013.

(xiii) Task 57-52-01-102 Special Detailed Inspection of the Hinge – Box Forward Lugs of the Outboard Flap of Section 5-10-30 of Part 2, “Airworthiness Limitations,” of Bombardier CL-604 Time Limits/Maintenance Checks Manual, Revision 20, dated July 8, 2013.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 25, 2015.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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